

## Lesson Plan

**Name of Faculty** : **Bharti Sethi, AP, CSE**  
**Discipline** : **Computer Science and Engineering**  
**Semester** : **8<sup>th</sup>**  
**Subject** : **Data Warehousing And Data Mining (IT-401-E)**  
**Lesson Plan Duration** : **15 weeks (from feb 2024 to August-2024)**  
**Work Load (Lecture/Practical) per week (in hours): Lectures-04 hours,**

Week	Theory		Topic Covered Date and Remarks		
	Lecture Day	Topic (Including Assignment/Test)	Date	HOD	Director-Principal
1 <sup>st</sup>	1	Data warehousing Definition,			
	2	Usage and trends			
	3	DBMS vs data warehouse,			
	4	Data marts,			
2 <sup>nd</sup>	5	Metadata			
	6	Multidimensional data mode			
	7	Data cubes,			
	8	Schemas for Multidimensional Database:			
3 <sup>rd</sup>	9	Stars,			
	10	Snowflakes			
	11	fact constellations			
	12	Data warehouse process			
4 <sup>th</sup>	13	Data warehouse architecture			
	14	OLTP vs OLAP			
	15	ROLAP vs MOLAP,			
	16	Types of OLAP,			
5 <sup>th</sup>	17	Servers			
	18	3-Tier data warehouse architecture			
	19	Distributed data warehouses,			
	20	virtual data warehouses,			
6 <sup>th</sup>	21	Data warehouse manager			
	22	Data warehouse implementation			
	23	Computation of data cube			
	24	Modeling OLAP data,			
7 <sup>th</sup>		<b>1<sup>st</sup> Minor Test</b>			
8 <sup>th</sup>	25	OLAP queries manager,			
	26	Data warehouse back end tools,			
	27	Complex aggregation at multiple granularities			
	28	Tuning of data warehouse			
9 <sup>th</sup>	29	Testing of data warehouse			
	30	Data mining definition			
	31	Data mining task			
	32	KDD versus data mining,			
10 <sup>th</sup>	33	Data mining techniques			
	34	Tools			
	35	Applications.			
	36	Data mining query languages			
11 <sup>th</sup>	37	data specification			
	38	specifying knowledge			
	39	hierarchy specification			
	40	Pattern presentation			
12 <sup>th</sup>	41	Visualization specification,			
	42	Data mining languages			
	43	standardization of data mining			
	44	Data mining techniques:			
13 <sup>th</sup>	45	Association rules, Clustering techniques			
	46	Decision tree knowledge discovery through Neural Network			
	47	Decision tree knowledge discovery through Genetic Algorithm			
	48	Support Vector Machines and Fuzzy techniques.			
14 <sup>th</sup>		<b>2<sup>nd</sup> Minor Test</b>			
15 <sup>th</sup>	49	Mining complex data objects			
	50	Spatial databases, Multimedia databases,			
	51	Time series and Sequence data;			
	52	Mining Text Databases and mining Word Wide Web.			

